



# Kansas State University

## Department of Statistics Newsletter

Volume 15, Issue 1

July 2005

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### Dr. Holly C. Fryer Passes Away



Dr. Holly C. Fryer, founder and first head of The Department of Statistics of Kansas State University, passed away at the age of 95 on November 7, 2004, in Manhattan Kansas.

The vibrancy of the academic department he created and its highly regarded consulting service are living testaments to the vision he had of the vital role that Statistics could and should play at a University and the battles he fought to win recognition for this new science. Holly continued to support the Statistics Department after his retirement in 1979, and along with his wife Beth, who survives, endowed an annual scholarship for its students. His almost daily presence on campus and ongoing involvement with departmental affairs, which continued until recently, inspired and challenged us all. His passing

leaves a void that cannot be filled.

Holly earned a B.S. in Mathematics from The University of Oregon in 1931 and a M.S. in Mathematics from Oregon State University in 1933. In 1940, Dr. Fryer earned the first doctoral degree in Mathematics with a major in Statistics awarded by Iowa State University. The Department of Statistics did not come into existence at Iowa State until 1947.

His Ph.D. dissertation, written under the direction of G.W. Snedecor and C.P. Winsor, titled "An analysis of

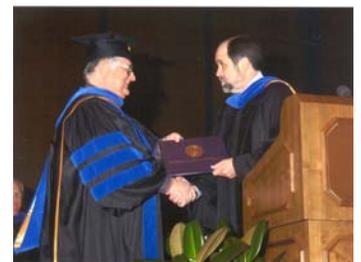
**See FRYER Page 4**

### Dallas Johnson Honored

Professor Dallas Johnson, a faculty member in The Department of Statistics at KSU for almost 30 years, has been named one of two campus recipients of the 2004-2005 Commerce Bank Distinguished Graduate Faculty Awards. Johnson received a \$2,500 honorarium, was recognized at the university commencement service and presented a university-wide address discussing aspects of his research.

The award is supported by The William T. Kemper Foundation and The Commerce Bank shares Foundation coordinated by the KSU Foundation. It is aimed at helping the university promote excellence in teaching and mentoring of students.

The Department adds its congratulations to Dallas for this very fitting recognition of his long and distinguished service.



Dallas Johnson's research interests include linear models, multivariate analysis,

**See JOHNSON Page 6**

### Get together in Minneapolis

The annual gathering of K-State alumni and friends at the Joint Statistical Meetings (this year in Minneapolis) will be held on Monday evening, August 8<sup>th</sup>. Check the message boards under 'K' for more information and a signup sheet. Come out and catch up with your friends!

## Higgins wins Goldwater Scholarship



**Michael Higgins** was one of four K-State students named in the spring of 2005 as winners of the prestigious Barry M. Goldwater Scholarships. Mike is an undergraduate carrying a double major in statistics and mathematics. His career plans include earning a doctorate in mathematical sciences.

He would eventually like to teach in a university setting, perhaps in topology, analysis, linear models, or probability theory. He is already involved in a research project, working with Dr. David Yetter, professor of mathematics, on 3-manifold variants with a framed link.

Higgins has previously earned numerous academic honors. He is a member of the National Dean's list and the K-State Honors list. He was a member of the K-State team that received meritorious honors in the 2004 Mathematical Modeling Competition, and he placed in the top 18% nationally in the 2004 William Lowell Putnam Mathematics Competition. He is a recipient of K-State Putnam, Mathematics, and Statistics Scholarships, and is a

member of Pi Mu Epsilon and the mathematics honorary society.

Higgins' outside interests involve music and computers. He plays trumpet in the K-State Marching Band, the Cat Band, the pep band, and he played in a jazz band during the Spring 2005 semester. He is currently adding the guitar to his musical repertoire. On the computer end of things, he enjoys both games and programming.

Mike grew up in Manhattan and graduated from Manhattan High School in 2002. He is the son of Jim and Mary Lou Higgins. Jim, of course, has been a faculty member in the department since 1980. Mike's older brother Eric is already a KSU

faculty member as well, holding a faculty position in the College of Business Administration.

The Goldwater Scholarship program began in 1989, with the aim of encouraging students to major in mathematics, statistics, the sciences, or engineering and to plan for careers in research in those areas. The scholarship money is appropriated by Congress and provides up to \$7,500 annually for a student's final one or two years of undergraduate study.

## K-Stater chosen for Fisher Lecture

The Fisher Lecture at the Joint Statistical Meetings in 2005 will be given by **R. Dennis Cook**, (Ph.D. 1971) professor of statistics at the University of Minnesota. Awarded annually by the Committee of Presidents of Statistical Societies (COPSS), the lectureship honors a leading statistician who has contributed significantly to scientific investigation through the development and promotion of statistical methodology. Professor Cook's lecture on dimension reduction will be delivered at the COPSS Awards Session at 4:00 p.m. on August 10, 2005 at the joint meetings in Minneapolis.

He has been a member of the faculty of the University of Minnesota School of Statistics since 1971. In addition to his primary appointment, Cook has held multiple visiting professorships both nationally and internationally, including professorships at the University of Southampton (UK), University of Wisconsin Mathematics Research Center, University of Texas at Austin, Nanjing Institute of Technology (People's Republic of China), University of Witwatersrand (South Africa), University of Waikato (New Zealand) and Penn State University. He has also been a frequent visiting staff

member of the Los Alamos National Laboratories. He has published well over 100 peer-reviewed articles and numerous discussion articles as well as several books.

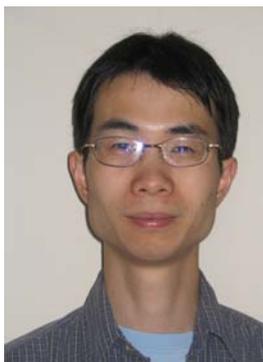
The COPSS established the Fisher Lectureship in 1963 in honor of Sir Ronald Fisher, one of the founding fathers of modern statistics.



## Scholarship Winners

In April the faculty announced the names of the recipients of the three major scholarships offered by the Department of Statistics for the 2005-2006 academic year.

### Beth and Holly Fryer Scholarship Awarded to Liang Fang



**Liang Fang** has been named winner of the Beth and Holly Fryer Scholarship in Statistics. Liang is a Ph.D. student from a “small town” (half a million people) in Central China. His wife, Yuan Xue, is a Ph.D. student in Human Nutrition at KSU. They both enjoy movies, traveling, and reading.

Liang is working with Dr. Dallas Johnson on a mixed-model project, with applications in the biological sciences. He hopes to pursue a career in that area.

The Fryer Scholarship is generously provided by Holly and Beth Fryer. Holly, who passed away this last year (see related story on page 1), was

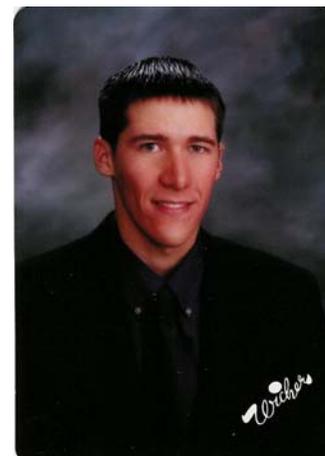
the first statistician hired by Kansas State and founded both our Statistical Laboratory and the Department of Statistics. The generosity of the Fryers and their continued support of students in the department is greatly appreciated.

### Eric Mann Named Winner of the Iman Scholarship

The winner of the Ronald and Rae Iman Scholarship in Statistics is **Eric Mann**. Eric is a graduate of Washburn Rural High School in Topeka and will be a senior in the fall with a double major in Statistics and Mathematics. He followed an older brother, Jeff, to K-State. He is currently working as a summer intern at the Allstate Insurance Company as an actuarial analyst. His outside interests include the KSU Marching Band, where he is the trumpet section leader, dormitory living (he’s a resident assistant in Goodnow Hall), racquetball, ultimate Frisbee and jogging.

He also participates in both the Statistics and Mathematics Clubs. As far as academic statistics go, he is particularly interested in group testing in the drug discovery process.

The Iman Scholarship is supported by Ron and Rae Iman of Albuquerque, New Mexico. Ron received his M.S. and Ph.D. degrees from the department and has been active in a wide variety of statistical areas. He is a former president of the American Statistical Association. The department and students truly appreciate the Imans’ support.



### Statistics Scholarship Awarded to Zhongwen Tang



The Statistics Scholarship was awarded for the coming year to **Zhongwen Tang**. He comes to us from Jiangxi in Fujian Province of China. He is married and has one daughter named Lillian. He loves mathematics (once won a bronze medal in a National Mathematics Tournament in China) and already has an M.S. from KSU in biochemistry. He likes Bayesian statistics, computational statistics, and stochastic processes, and hopes

to do biostatistical research after earning his doctorate. His outside interests include history and philosophy.

The Statistics Scholarship is supported by donations from faculty and former students. It is endowed to support able students in their study of statistics.

## News of our Alumni

**Jason Barga** (M.S. 2003) has left his position at the Hallmark company in Kansas City and moved to Lincoln, NE, where he now works for the Pfizer Corporation.

**Jeff Crabb** (M.S. 1990) now works for Citigroup at the CitiMortgage facility in St. Louis. He's in the Risk Management department in the Corporate MIS and Data Management group and still working with SAS.

**Geri (Hilker) Rickert** (M.S. 1975) worked for a number of years for Farmland Industries, some full-time, some part-time, while raising her children. Her biggest project involved an optimization model for the U.S. soybean industry that involved joining 80+ operators into one large company that left it strategically positioned both in the US and world-wide. Farmland itself ran into financial troubles and eventually declared bankruptcy, so Geri and her husband moved to an acreage 30 minutes outside of Kansas City. Her youngest daughter recently graduated from K-State with a degree in landscape architecture and will likely be called on for some consulting around the home place.

**Kim Howell** (M.S. 1994) announces the arrival of a daughter. Jaden Rhianne Howell was born June 29, 2004, weighing 6 pounds, 2 ounces and is now in charge of the household.



**Adam Jarvis** (B.S. 2002) has gone to work for Strategic One, a company which does financial consulting to charitable organizations, in Kansas City, Missouri. Jointly with his company's president, Adam presented a departmental seminar in the fall of 2004.



**Rajesh Kaldate** (M.S. 2001) has left the Kansas City area to take a job with GlaxoSmithKline in Collegeville, PA.

**Jenny Kendall** (M.S. 1994) and family have left Iowa for the warmer climate of the southwest. They now live in Tucson, AZ where Jenny is in the midst of a "working retirement" which involves teaching statistics on-line for the University of Phoenix, learning to rock climb, teaching handi-dog classes, writing, beading and picking up an occasional statistics project.

**Sarah Loyer** (M.S. 2001) is working at Eastern Mennonite University in Harrisonburg, Virginia. She is teaching statistics and mathematics and working as a residence director in a facility for upper-classmen.

**Kevin McCarter** (Ph.D. 1999) has left industry to give academia a try. He has accepted a position as assistant professor of statistics at Louisiana State University in Baton Rouge, Louisiana.

**Shannon McDonnell** (M.S. 1995) has been promoted to STAT3, the highest rung on the career ladder for a MS statistician, at the Mayo Clinic in Rochester, MN.

**Lisa (Petty) Morrow** (M.S. 1990) has accepted an offer of voluntary severance from Hewlett-Packard in Corvallis, Oregon, as a part of a corporate down-sizing program. Her husband has a business in their hometown of Veneta, Oregon, so she'll be looking for opportunities in that area.

**Hal Stephenson** (Ph.D. 1969) has retired from General Motors engineering after more than 20 years with the company. He started his career with Boeing in Wichita and has spent much of the last 36 years working on quality problems in a variety of venues. He is also a (retired) lieutenant colonel in the army reserve.

**Lucas Taylor** (M.S. 2002) is now working in the animal pharmaceutical area for the Pfizer Corporation and living in Kalamazoo, MI.

**Diane (Woodward) Peach** (M.S. 1994) is now married with two daughters, Anna (two and a half months) and Kate (nine months). Her husband Bill is still in school (graduation is on the horizon) so life is busy but rewarding. Diane continues to work for the Meredith Corporation in Des Moines.



## Fryer (continued)

*Dr. Fryer's enthusiasm for the central role of Statistics in applied science inspired several generations of students and leaves a legacy that we honor by our commitment to fostering the continuing development of his pioneering work.*

group differences arising from a Poisson distribution obtained from irradiation experiments," explored the reliability of Chi-Square tests when classes are numerous and expected counts are small. Holly was a fellow of The American Statistical Association and The Royal Statistical Society of Britain. He authored two textbooks and wrote numerous papers on a variety of topics.

Holly joined the Kansas State faculty in 1940 and served as a statistician for the Agricultural Experimental Station. He was instrumental in creating The Kansas

State Statistical Laboratory in 1945 and served in a dual role as its head and Professor of Mathematics. In 1959, he became head of the newly formed Department of Statistics and held that position until 1975.

Dr. Fryer's enthusiasm for the central role of Statistics in applied science inspired several generations of students and leaves a legacy that we honor by our commitment to fostering the continuing development of his pioneering work.

## Recent Grad News

### Ph.D. degrees

#### Jamie Perrett

has completed his work under the direction of Jim Higgins. He has accepted a faculty position in Statistics at Northern Colorado University and has moved his wife Laura and two children to Greeley, Colorado. He presented "A Method of Analyzing Unreplicated Agricultural Experiments," which was based on his dissertation, at the 2005 KSU Conference on Applied Statistics in Agriculture.

**Oumar Sy** wrote his dissertation under the tutelage of Dr. George Milliken. He and his family moved to the Boston area where he now works for Averion, Inc., in Framingham, Massachusetts.

### M.S. degrees

**Lieqi Bi** has finished her M.S. work under the direction of Paul Nelson. As of this writ-



ing she is still looking for employment.

**Wendy Boberg** worked under Jim Higgins. She is currently employed by the Arkansas Foundation for Medical care in Little Rock, Arkansas.

**Lili Cheng** received her M.S. after working under Jeff Pontius. She currently holds a Graduate Research Assistant appointment on campus and will begin work on her doctorate in statistics this fall.

**Fouzia Laytimi** wrote her report under the direction of Dallas Johnson. She has begun employment with Information Resources, Inc. in Chicago, a market resources firm.

**Yan Ling** worked with Paul Nelson for her M.S. report. She has made a summer trip to visit with family in China and will start her work in the

department's doctoral program this fall.

**Scott Roths** worked under the tutelage of Joshua Tebbs. Scott will continue his studies in statistics this fall working toward a Ph.D. at Penn State University where he will hold a graduate teaching assistantship.

# Congrats!!!

**Shawn Rouen** wrote his M.S. report under the direction of Jim Higgins. He is currently employed at Hallmark Corporation in Kansas City.

**Sandeepa Sangras** did her M.S. work under the direction of Jeff Pontius. She has taken a position with HSBC (stands for Hongkong and Shanghai Banking Corporation), a huge player in the credit card market, in Las Vegas, Nevada.

**Sailesh Vezzu** finished his M.S. under the direction of Jim Higgins. He has taken a position with Educational Testing Service in Princeton, New Jersey.

**Zhanying Zong** wrote her M.S. report under the guidance of Winston Yang. She is currently living in New Orleans, Louisiana.

### B.S. degrees

**Kevin Kennedy** has finished his work in statistics. He will continue on in the department, pursuing an M.S. degree and working as a Graduate Teaching Assistant.



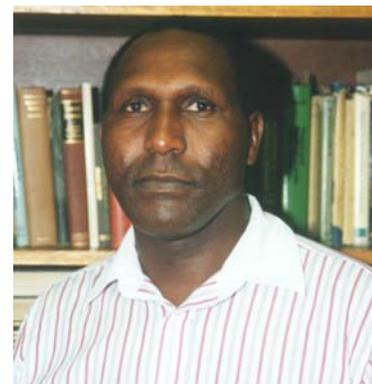
## Peter Njuho Returns to KSU

The department is delighted to host Dr. Peter Njuho as a visitor for the 2005-2006 academic year. Peter did his graduate work at KSU, writing his dissertation under the direction of Dr. George Milliken in 1995. After finishing his doctorate, Peter returned to his native Kenya where he began his academic career.

Peter is currently a senior lecturer at the University of KwaZulu Natal in Pietermaritzburg, South Africa. He has been active in a number of academic areas, especially the African branch of the International Biometric Society.

Peter will be on sabbatical leave from his home university and will be teaching and doing his research in the de-

partment. He will leave wife Esther and sons Edwin and Matthew at home, but has plans for them to visit him while he is here.

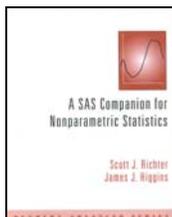


## Faculty Activities

**John Boyer** has had a very busy year. In August 2004, he attended the joint statistical meetings in Toronto. He went to Oregon State University in February as part of a departmental review for the Department of Statistics at OSU. In May, he again participated in the judging for the International Science and Engineering Fair, held this year in Phoenix. This year he is serving as chair-elect of the ASA's Council of Sections. He was also appointed administrative advisor to the NCR-170 group, an arm of the North Central Region experiment station directors' group which works on statistical applications in the agricultural sciences.

**Suzanne Dubnicka** participated in the "Nonparametric Statistics: Frontier" workshop sponsored by the ASA's Section on Nonparametric Statistics held in January at Texas A&M University.

**Jim Higgins'** new book *A SAS Companion for Nonparametric Statistics*, jointly written with Scott Richter, was recently published by Duxbury Press.



**Dallas Johnson** attended the joint statistical meetings in Toronto in August 2004.

**Tom Loughin** has been on sabbatical leave for the 2004-2005 academic year. He has been working in the Department of Statistics at Simon Fraser University in Burnaby (a suburb of Vancouver) British Columbia. He reports that his daily commute is a 45-minute walk up the mountain through a rain forest. He has given talks at the 2004 JSM in Toronto, at a joint SFU/University of British Columbia Seminar, and a Pacific Northwest Statistics Meeting in Victoria. He (almost reluctantly) returns to Manhattan in late July to resume his duties at KSU.



**George Milliken** continues to serve as an associate editor for the Journal of the American Statistical Association. He also attended last summer's NCR-170 meeting in Gainesville, FL and is serving as the program chair for this current year's meeting, to be held in Fort Collins, CO.

**Jeff Pontius** attended the Integrated Training and Management Conference (the Army's umbrella program for the Range and Training Lands Assessment Project) at Fort Riley in San Francisco in August 2004. In June of 2005, he attended the WNAR meetings in Fairbanks, Alaska.

**Josh Tebbs** made presentations at both JSM (Toronto) and ENAR (Austin) this last year. He also gave a talk at Stockholm University in September. He has been involved with two Big 12 fellowship grants this past year, one with faculty from Oklahoma State and one with Nebraska.

**Haiyan Wang** attended both the course on longitudinal data analysis at the Seventh Annual Winter Workshop in Gainesville, Florida and the "Nonparametric Statistics: Frontier" workshop sponsored by the ASA's Section on Nonparametric Statistics held at Texas A&M University in January. In June she attended the Graybill Conference at Colorado State University where she presented a poster on "Classification of Cell Cycle Regulated Genes based on Nonparametric Hypothesis Testing."

## Johnson (continued)

experimental design, analysis of cross-over designs and the messy data analysis. His work has been supported by grants and contracts from the National Science Foundation, U.S. Army Research Office, the Nuclear Regulatory Commission, the Office of Naval Research, U.S. Veterans Administration, U.S. Department of Health and Human Services, Glaxo-Wellcome Pharmaceutical, Pioneer Hybrids and Alco Aluminum.

The author of four books, Johnson has written more than 30 refereed articles in statistics journals and more than 50 articles in subject-area journals. He also has frequently lectured internationally. At K-State, Johnson has served as

the major professor to five master's students and 14 doctoral students. He has also served on supervisory committees of more than 100 graduate students from across campus.

Johnson is a Fellow of the American Statistical Association and received the association's Founders Award in 2004 for more than 35 years of service to the organization. His service includes chairing sections on statistical education, statistical consulting and serving on the association's board of directors. In addition, he has served on the editorial boards of several major statistical journals and was the founding editor of the Journal of Agricultural, Biological and Environmental Sta-

tistics.

As a K-State faculty member since 1975, Johnson was promoted to full professor in 1981. He served as head of the department of statistics from 1995 to 2001. Johnson earned a bachelor's degree in mathematics education from Kearney State College; a master's in mathematical education from Colorado State University and a master's in mathematics from Western Michigan University; and a doctorate in statistics, also from Colorado State.

Dear Friends of the Statistics Department,

2004-2005 was a busy and exciting year for the department. In other parts of this newsletter you'll see stories that describe some of the most noteworthy accomplishments. These include:

- Dallas Johnson winning Distinguished Graduate Faculty Award
- Michael Higgins (undergraduate major) winning prestigious Goldwater Scholarship
- R. Dennis Cook (alumni) being named Fisher lecturer by the American Statistical Association

The 17<sup>th</sup> annual Conference on Applied Statistics in Agriculture was held in April 2005. Dr. Alicia Carriquiry of Iowa State University was the keynote speaker. She spoke about Bayesian methods in agriculture. Her workshop was extremely well-received.

I would also point out to you some changes in the department faculty. The biggest change is that Dr. Joshua Tebbs will be leaving us to take a new position at the University of South Carolina. Josh has done a terrific job here, but we wish him well in his new endeavors. Taking his spot for a year will be Dr. Peter Njuho, who earned his doctorate here in 1995. (There is a separate short story about Peter on page 5). Additionally, Dr. Tom Loughin will be bringing his family back

University in Burnaby British Columbia. He reports that the weather and scenery there have both been spectacular and that his work has been productive.

On a sadder note, you would have read in our lead article of the death last November of Dr. Holly Fryer, the founder of the department. Holly was nearly 96 when he passed away. His leadership and contributions to the department and the university were extraordinary. It was a privilege for each of us to have known him.

Our successes are made even greater because of support from you, our alumni and friends. Private support is vital to ensure that our department is a vibrant, exciting place where students can learn from top-notch faculty. Please consider making a donation to the Department of Statistics. A form is attached below. All gifts - small and large - go directly to the support of our students and faculty. Your generosity is essential to our department and is greatly appreciated.

Last but not least, do stay in touch. We always enjoy hearing from our alumni and friends. Please feel free to write, call, or e-mail me with your thoughts, ideas and suggestions.

With many thanks,

John Boyer



Your tax-deductible contribution to the Kansas State University Foundation can be designated to the benefit of the Department of Statistics. (Fund number F38300)

Enclosed is a check in the amount of \$ \_\_\_\_\_ made out to the KSU Foundation (please write Statistics Department in memo line).

**Mail to:**

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For updated news throughout the year please check out our NEWS section on the KSU Statistics Homepage at: <http://www.ksu.edu/stats>.